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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/147,750	05/28/1999	MIKAEL ISAKSSON	2867-0144-2P	2143

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CHRISTOPHER F. REGAN
ALLEN, DYER, DOPPELT, MILBRATH & GILCHRIST, PA
P.O. BOX 3791
ORLANDO, FL 32802-3791

EXAMINER
DEPPE, BETSY LEE

ART UNIT	PAPER NUMBER
2634	

DATE MAILED: 11/22/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No. 09/147,750	Applicant(s) ISAKSSON ET AL.
	Examiner Betsy L. Deppe	Art Unit 2634

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☐ Responsive to communication(s) filed on _____ .

2a)☐ This action is **FINAL**. 2b)☒ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-35* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☒ Claim(s) *1-3* is/are allowed.

6)☒ Claim(s) *13-35* is/are rejected.

7)☒ Claim(s) *4-12* is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☒ The drawing(s) filed on *28 May 1999* is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

11)☐ The proposed drawing correction filed on _____ is: a)☐ approved b)☐ disapproved by the Examiner.

If approved, corrected drawings are required in reply to this Office action.

12)☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

13)☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☒ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____ .

3.☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

14)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).

a) ☐ The translation of the foreign language provisional application has been received.

15)☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

1) ☐ Notice of References Cited (PTO-892)
2) ☒ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) *3* .
4) ☐ Interview Summary (PTO-413) Paper No(s). _____ .
5) ☐ Notice of Informal Patent Application (PTO-152)
6) ☐ Other: .

DETAILED ACTION

Specification

1. In order to provide a more complete description of the claimed invention, in the abstract, the Examiner suggests including a statement regarding the changing of the control channel from one carrier wave to another carrier wave on the basis of the channel characteristics.

Claim Objections

2. The claims are objected to because of the following informalities:

on line 2 of claims 4 and 5, "either" should be deleted;

on line 3 of claims 4 and 5, "DMT based" should be "DMT-based";

in claim 7, the Examiner suggests reciting the elements/steps on lines 6-10 of the claim using verbal phrases introduced by a gerund or verbal noun (the "-ing" form of a verb). For example, on line 6, "establishment of said control channel" should be "establishing said control channel";

in claim 8, lines 6 and 10, the Examiner suggests changing "said transmitter" to "in said transmitter,";

in claim 8, line 13, the Examiner suggests changing "said receiver" to "in said receiver,";

in claims 9, 10, 25 and 26, the Examiner suggests reciting the elements/steps of the claim using verbal phrases introduced by a gerund or verbal noun (the "-ing" form of a verb).;

in claim 11, line 6, "the received sync" should be "a received base sync";

in claim 15, line 4, "a BSI" should be "the BSI";

in claim 18, lines 6 and 9, "said second transceiver" should be "in said second transceiver," ;

on line 1 of claims 20 and 21, "either" should be deleted;

on line 3 of claims 20 and 21, "DMT based" should be "DMT-based";

in claim 25, line 2, it appears that "transferring" should be "changing" (see claim 17, line 22);

in claim 26, it appears that "claim 7" should be "claim 23";

in claim 31, line 3, "a BSI" should be "the BSI."

Appropriate correction is required.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

> The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

4. Claims 13-35 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

5. With regards to claims 13-16 and claims 29-32, claims 13 and 29 recite the limitation "the BSI" in line 3. There is insufficient antecedent basis for this limitation in the respective claims. Furthermore, "BSI" is not defined in the respective claims.

6. Regarding claims 17-32, the phrase "such as" in claim 17 renders the claims indefinite because it is unclear whether the limitations following the phrase are part of the claimed invention. See MPEP § 2173.05(d).

7. With regard to claims 33-35, it is unclear how the respective receiver, transmitter and transceiver relate to the receiver and transmitter in the first and second transceivers of the multi-carrier transmission system of claim 1. For example, is the receiver of claim 33 the same as the receiver in one of the transmitters or is it another receiver in the multi-carrier transmission system?

Allowable Subject Matter

8. Claims 1-12 are allowable.

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Betsy L. Deppe whose telephone number is (703) 305-4960. The examiner can normally be reached on Monday - Wednesday (8:30-4:00).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Stephen Chin can be reached on (703) 305-4714.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks
Washington, D.C. 20231

or faxed to:

(703) 872-9314 (for Technology Center 2600 only)

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

Betsy L. Deppe
Primary Examiner
Art Unit 2634
November 20, 2002